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10/553,538	10/02/2006	Raoul Monnier	PF030061	6006

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EXAMINER	
VU, NGOC K	

ART UNIT	PAPER NUMBER
2421	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/553,538	MONNIER ET AL.	
	Examiner	Art Unit	
	NGOC K. VU	2421	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 12 recite the feature of remultiplexing the portions extracted from at least one **remultiplexed flow**. (Emphasis added). However, the specification describes that a demultiplexing module 22 extracts portions 13 of subsignals 12, then a remultiplexing module 23 multiplexes portions 13 into one or more remultiplexing flows 14. (See p. 12, 17+; figure 2). Thus, this indicates remultiplexing the portions extracted from demultiplexing module. It is unclear what "at least one remultiplexed flow" referring to. Accordingly, this renders the claims as being indefinite. For purposes of examination, the claimed "remultiplexed flow" is being treated as -- demultiplexed flow -- in light of the specification.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 4-7, 9, 10, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Naden (WO 01/56297 A1).

Regarding claim 1, converter (see HSB 702 in Fig. 7) of digital signals (see "digital TV signals" recited on page 4, line 21) received in modulated and multiplexed form (see page 2,

line 23), comprising means for selecting (see RF switch 202 and Tuners 204 in Fig. 7) at least one part of said signal by adjustment at at least one determined frequency (the output of the switch is connected to one or more 6- MHz TV tuners, which are used to down convert the wide band signal containing up to 175 channels into the desired 6 MHz baseband signal(s) - see page 2, lines 20- 23) and means for demodulating (see demodulators 206 in Fig. 7) the said parts, capable of producing at least one demodulated subsignal (see page 2, line 23), the said converter further comprising:

means for demultiplexing (see Transport Demux of element 206 shown in Fig. 7) the said subignals designed to extract portions of the said subsignals (each desired baseband signal is then demodulated and demultiplexed - see page 2, line 23; and see "demux chains for respectively converting the baseband video signals into corresponding transport streams" recited in claim 1, wherein the transport streams represent the claimed extracted portions of the said subsignals);

means for remultiplexing (see Mux 208 in Fig. 7) the said portions extracted from at least one demultiplexed flow (see Fig. 7, wherein the Mux takes in the extracted flows from the demux chains 206 and remultiplexes the extracted transport streams);

means for transforming said remultiplexed flow designed to modify said remultiplexed flow in compliance with specific criteria for transmission to recipient receivers, said transformation means being provided to modify said remultiplexed flow so as to make it comply with at least one communication protocol (e.g., wireless protocol 212, base station radio transceiver 214, Internet access modem 210 and wireless internet access unit 502 in Fig. 7, which modify the remultiplexed flow to comply with communication protocols, such as that provided by the wireless protocol 212, also Internet access modem 210 can be implemented by, for example, satellite express 2530 XL USB or satellite receiver for other Internet

communication means such as Telco POTS, Telco xDSL or cable modems, that correspondingly different modems 210 would be provided - see page 8, lines 15-21; each different types of modem are used for different communication protocol, and the remultiplexed streams are modified accordingly),

wherein said converter comprises a unit (within HSB) containing all of said means, as well as frequency downconversion means of the digital signals received (via tuners - see page 7, lines 4-6; abstract), upstream of said selection means (return/uplink signals - see page 4, lines 24-25; page 5, lines 21-22; page 9, lines 14-15; page 10, lines 26-27).

Regarding claim 2, wherein the converter is intended to convert digital signals transmitted by satellite (the coax cables 108 from the satellite TV receivers - see page 6, line 26).

Regarding claim 4, wherein at least one of said communication protocols is a protocol for communication to a digital network, preferentially chosen from among the standards Ethernet, IEEE1394, IEEE802.1 la and Hiperlan2 (see "HiperLan2" - page 9, line 11).

Regarding claim 5, wherein the selection and demodulation means are designed to select and demodulate transmission digital channels in order to produce said subsignals (after demodulation...the resulting signal consists of MPEG2 Transport streams..." on page 7, lines 13-15; wherein the transport streams are the produced subsignal).

Regarding claim 6, wherein the demultiplexing means are designed to extract audiovisual programmes constituting at least some of the said portions (see "MPEG2 audio/video packetized elementary streams" on page 7, lines 15-16).

Regarding claim 7, wherein the remultiplexing means are capable of remultiplexing said portions into MPEG transport streams constituting said remultiplexed flows (see

:Multiplexer...creating a new MPEG-2 transport stream which is a merged version of the MPEG-2 streams which feed such multiplexer" recited on page 8, lines 2- 4).

Regarding claim 9, wherein the converter also comprises means for extracting extraction information received from recipient receivers, and in that the transformation means are capable of determining said subsignals and said portions according to said extraction information (see "each SSTB receiving entity sends program selection signals to the base station indicating the channel(s) desired for viewing...and subsequently re- multiplexed into a new MPEGII stream for broadcast to the collection of SSTBs" recited on page 8, lines 25 to page 9, line 3).

Regarding claim 10, wherein the converter also comprises means for modulating feedback signals from recipient receivers (see Internet access modem 210 in Fig. 2 or 7, wherein the Modem is a modulater/demodulater, which receives signal from the recipient devices 116 via the base station radio transceiver 214 and wireless protocol 212 prior to modulating and sending the signal upstream to the satellite system 122).

Regarding claim 12, conversion procedure for digital signals (see "digital TV signals" recited on page 4, line 21) received in modulated and multiplexed form (see "Each desired baseband signal is then demodulated and demultiplexed..." recited on page 2, line 23, that is, each baseband signal, when received is originally modulated and multiplexed), in which adjustment at least one determined frequency selects at least one part of said signals (see "The output of the switch is connected to one or more 6-MHz TV tuners, which are used to down convert the wide band signal containing up to 175 channels into the desired 6 MHz baseband signal(s)" recited on page 2, lines 20- 23) and said parts are demodulated so as to produce at least one demodulated subsignal (see "Each desired baseband signal is then demodulated..." recited on page 2, line 23), said procedure comprising the following steps:

demultiplexing of said subsignals, so as to extract portions of said subsignals (see ("Each desired baseband signal is then demodulated and demultiplexed..." recited on page 2, line 23; and see "demux chains for respectively converting the baseband video signals into corresponding transport streams" recited in claim 1, wherein the transport streams represent the claimed extracted portions of the said subsignals);

remultiplexing the said portions extracted from at least one remultiplexed flow (see Fig. 7, wherein the mux takes in the extracted flows from the demux chains 206 and remultiplexes the extracted transport streams);

transformation of said remultiplexed flow in accordance with specific criteria for transmission to recipient receivers, so as to render the remultiplexed flow compliant with at least one communication protocol (see Wireless Protocol 212, base station radio transceiver 214, Internet Access Modem 210 and Wireless Internet Access Unit 502 in Fig. 7, which modify the remultiplexed flow to comply with communication protocols, such as that provided by the wireless protocol 212, also "Internet access modem 210 can be implemented by, for example,...Satellite Express 2530 XL USB...Satellite Receiver...for other Internet communication means such as Telco POTS, Telco xDSL or cable modems, that correspondingly different modems 210 would be provided" recited on page 8, lines 15-21; each different types of modem are used for different communication protocol, and the remultiplexed streams are modified accordingly).

Wherein all said stages of frequency downconversion, frequency adjustment, demodulation, demulplexing, remultiplexing and transformation are carried out by means of the same device (within HSB device - see figure 7),

said conversion procedure being preferentially implemented by means of a converter (HSB) in accordance with claim 1.

Regarding claim 13, receiver of multiplexed digital signals compliant with a communication protocol (see "slave STBs" recited on page 9, lines 14), wherein said receiver comprises means for the preparation and transmission via uplink communication of transmission information (see "uplink signals from STBs" recited on page 9, lines 14-15); said transmission information comprising information on at least one communication protocol associated with said receiver, said transmission information depending on the type of receiver or network to which it belongs (it is noted that the uplink signal comprises information having data and/or command for forwarding to Internet access modem or to tuners, demux chains and mux via wireless protocol - see page 9, lines 7-17),

said receiver being preferentially designed to received a remultiplexed flow from a converter according to claim 1 (wherein the slave STB receives the remultiplexed flows from mux of the HSB - see Fig. 7).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 3 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naden (WO 01/56297 A1) in view of Williams (US 5,970,386 A).

Naden teaches the feature of master STB or HSB converting digital signals received from satellites in accordance with a communication technique chosen from a local multipoint telecommunications system and a multipoint distribution system. As noted, the master STB or HSB performs the features of selection, demultiplexing, remultiplexing and transformation of the received signals (see figures 1 and 6-7 and interpretation of claim 1). Naden does not teaches

that the digital signals transmitted on terrestrially, and means for receiving other digital signals received in modulated and multiplexed form and chosen from among the signals transmitted by cable and signals transmitted terrestrially in the UHF and VHF bandwidth. However, Williams teaches a transmodulator receives signals from cable provider, local off-air antenna and/or any other signal sources. The received signals may comprise cable, satellite or off-air signal including standard CATV, UHF, VHF…etc. See col. 6, lines 1-12. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Naden by receiving digital signals transmitted on terrestrially, and receiving other digital signals received in modulated and multiplexed form and chosen from among the signals transmitted by cable and signals transmitted terrestrially in the UHF and VHF bandwidth as taught by Williams in order to selectively provide information from different sources to viewers.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Naden (WO 01/56297 A1) in view of Chethik (US 7,469,124 B1).

Naden does not teach means for extracting transmission information received from recipient receivers in that the transformation means are capable of determining the transmission criteria according to said transmission information. However, Chethik teaches a transmitter device, e.g., satellite, receives information indicating a new transmission rate to be changed from a receiving station. See col. 7, lines 37-44 and FIG. 6. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Naden by obtaining transmission information received from receivers in that the transmitter determines the transmission criteria according to said transmission information as taught by Chethik in order to improve the data download capacity from transmitter to the receivers.

Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NGOC K. VU whose telephone number is (571)272-7306. The examiner can normally be reached on Monday and Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/NGOC K. VU/
Primary Examiner, Art Unit 2421